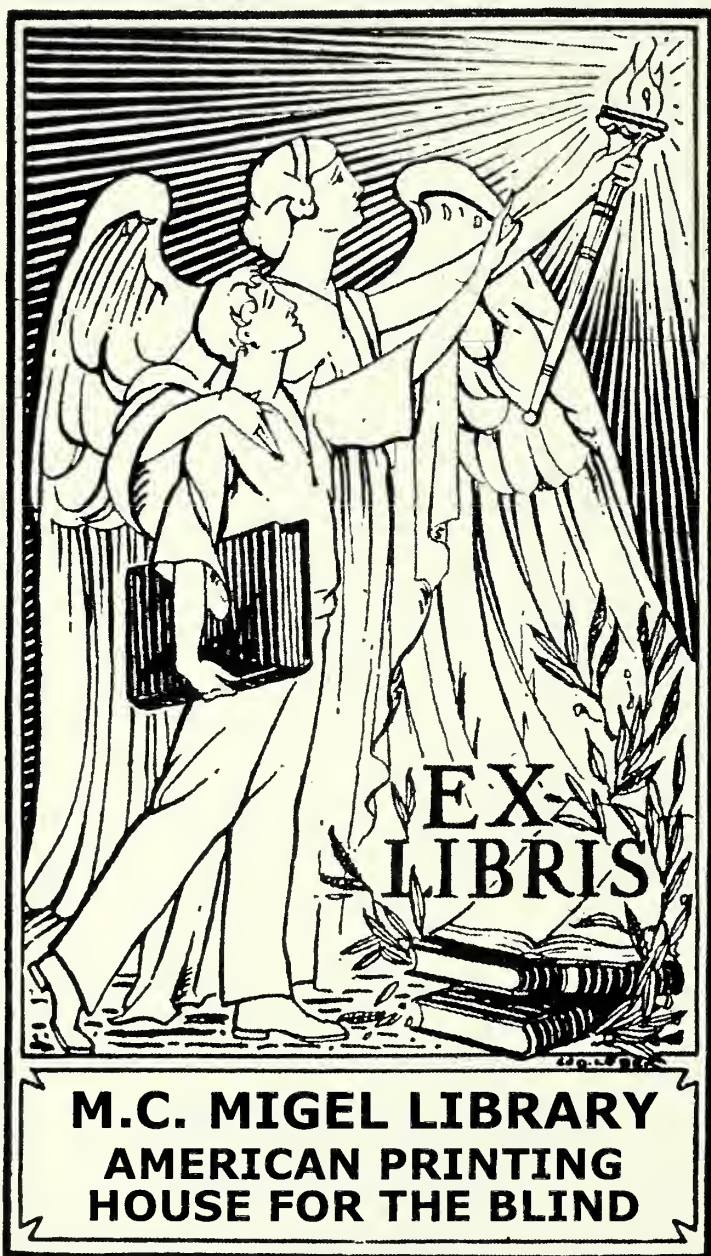


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Emile Jaques-Dalcroze.

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BLIND CHILDREN AND EURHYTHMICS

BY EMILE JAQUES-DALCROZE

Translated by Fred Rothwell

WHEN visiting schools for the blind, I had always been struck by the weak constitution, the physical awkwardness, the nervousness and apparent inattention of most of the children. The masters were all agreed in acknowledging that their awkward attitudes, their vacant expressions and their inertia, were the outcome of their lack of self-confidence, their dread of not being appreciated, and their incapability of complete self-expression. Whereas ordinary children read in the faces of their instructors an ever-present solicitude and interest, blind children, when not being directly addressed, cannot ascertain whether or not they are being neglected. During a silence, whether short or prolonged, they imagine themselves forgotten and gradually assume the aspect and habits of the lonely individual, the somber air of detachment and abandonment often seen in the prisoner. Their doctors have told me how difficult they have found it to convince them, when they are taken ill, of the necessity of forcing themselves to resist the disease and so hasten their cure. Their powers of moral and physical resistance are frequently inadequate, and few seem to care greatly about living.

On several occasions I had the opportunity to watch blind children listening to music—and I perceived on many a little face a sort of furtive interest, budding smiles and nascent energies. And on learning

that the majority of them receive no more lessons in music or gymnastics than do sighted children, I wondered if a special psycho-physical education, based on the study of sound and rhythm, might not be calculated to release the latent powers of the blind, awaken their curiosity, and develop their imagination and their natural craving for self-expression.

While giving lessons in Eurhythmics to normal children at Hellerau, the idea came to me to put them through certain exercises blindfold, in order that I might compare their movements under both conditions. I at once noticed that nervous subjects became far more nervous when deprived of vision, that the "rash and eager" type immediately lost all self-control, and that only those possessed of a calm, clear intellect, along with a supple and elastic muscular system, took pleasure in the exercises, and rapidly solved the problems presented to them regarding distance and direction, line and form. I came to the conclusion that a systematic study of energy and time nuances in movements and of rapid contraction and relaxation of the muscles, along with exercises that aim at increasing the number of reflex movements and harmoniously training the nervous system by alternately calming and exciting it, would prove a valuable aid in the general education of the blind. Indeed, Eurhythmics is the art (and the sci-

ence) of restoring freedom to the natural rhythms of the body—resulting in bodily quiet and poise, and of strengthening impressions and feelings—resulting in mental and spiritual tranquillity and elation.

From that time onward, my mind was engaged upon this important and complex question. Two of my pupils, Miss Meredyll of London and M. Joan Llongueras of Barcelona, undertook to introduce Eurhythmics into classes of blind children which I had the good fortune to visit. The results obtained were so remarkable that the educational authorities unhesitatingly favored the continuation of these special studies. The teachers in the London school were unanimous in declaring that the children were passionately fond of their lessons and that their general deportment greatly improved. M. Llongueras stated that his blind pupils attained "a very sure and precise notion of space. Their movements became more definite and assured. Eurhythmics strengthens and vivifies their personality, enriches their lives, develops their imagination, strengthens their will and clarifies their thinking processes. They have become bolder and more optimistic and have felt growing up within them the sense of expression, a feeling of pleasure and enthusiasm."

I too was profoundly moved when I saw the serene joy transfiguring their poor little faces under the influence of music and of the corresponding bodily movements, and I determined to devote closer study to this absorbingly interesting question, and to try to set up more intimate correlations between the ordinary rhythmic exercises and the

classic education of the blind. I also endeavored to evolve new exercises more specifically adapted to their physical and mental condition.

The sense substitution so frequently spoken of in reference to the blind, is but a product of the defensive instinct in cases where one of the faculties happens to be lacking. This substitution comes about gradually as the result of spontaneous experiments generated by necessity; it is not—as was once thought to be the case—a legitimate compensation granted by nature to an individual deprived of one or other of the senses. With a few exceptions, the tactile sensibility of the blind man is no more acute than that of the sighted; neither is his keenness of hearing. There is no definite connection between the faculties of hearing, touch and smell in human beings. The reason that the blind more completely differentiate their impressions of touch than do the sighted, is not due to special propensities, but to the constant practice imposed on them by circumstances, enabling them also to set up relations between their motor and tactile sensations and their sense of space. The reason that the keenness of touch of a Helen Keller or a Laura Bridgman appears superior to that of the sighted is because the intelligence of these two blind and deaf girls was above the average, enabling them to a greater extent to imagine and attempt exercises calculated to strengthen the qualities of their remaining senses. Thus we may take for granted that one of the first objects to be attempted by those who undertake the education of the sightless, is to develop their imaginative powers and so enable them

to associate rapidly the greatest possible number of diverse sensations.

Certain of the born blind consider that only sightless teachers are capable of controlling the experiments of their blind brothers, because they hold that normal persons cannot place themselves in the physical and spiritual state necessary for attempting exercises aiming at the education of the senses. There is an element of truth in this. Nevertheless, a blind teacher cannot possess a sighted person's faculties of control; the experiments of the former need to be supplemented, directed and vivified by those of the latter. The explanations of the fully educated blind person will incite the sighted teacher to seek after means of establishing relations between the state of blindness and that of clear vision, between the impressions produced by the muscular sensation of space and the vision of space, between appreciations dictated by the ear and those given by the eye.

Certain scientists (men like Griesbach and Kunz) hold that blindness frequently causes a weakening of the sense of touch, of hearing and of smell, but it is my impression that this weakening is simply concomitant with a general state of debility and feeling of physical inferiority which may be observed in many subjects who lose confidence in the reality of their still remaining powers. Hence, it is important to impress upon the blind child the wealth of resources at his disposal, in spite of his affliction; and to urge upon him the necessity of communicating in his own way with the seeing world.

As a general thing the seeing person relies entirely on his sense of

vision when there is a question of finding his way about. He has at his disposal means of control that are wholly external and he neglects to analyze — or even utilize — his muscular sensations in the process. Once he has his eyes shut, however, he experiences the same physical inconvenience as do the blind, the same difficulty in performing natural and rapid gestures, in keeping his balance, walking in a straight line, or finding his way in different directions. With practice, of course, he becomes accustomed to dispense with the guiding-marks created by the eye and is conscious that his powers of directing himself depend on new muscular appreciations dictated by a special sense, which is as rich in easy natural manifestations as is the ocular sense.

In other words, when you and I make our way towards a certain point in space, it is the eye, so to speak, that gives our body the desire and initiates the movement, imposing on it the requisite orientation. Here, naturally, I am speaking of those who enjoy the free use of their limbs. The ataxic or the myelitic, who have lost a part of their sensibility and space direction, find it difficult to walk although they have retained their power of vision. To restore the sense of balance in the former and increase the sensibility of the latter, there must be reëducation, which, at first, does not need the aid of sight. Our clearness of vision frequently prevents us from gauging the true proportions of space, and, in addition, often deceives us in the matter of perspective. But when we close our eyes and are told to take twelve steps forward and then stop, our muscular consciousness gives us precise information as to the space

to be traversed. For example, the pianist becomes truly master of the expanse of his keyboard only when he can play with eyes shut, when he can dispense with the control of the eyes which point out to him just the precise spot at which the key should be struck and rely wholly on the experienced relations between this spot with the other keys.

After all, the main thing—in these studies of muscular and spatial relations—is to ascertain that the blind man is sure of his steps and possesses the peace of mind which such security engenders. These studies need to be supplemented by those which aim at making it possible for the body to move and cease moving without moral, intellectual or physical resistance, and to do this at all speeds and at the right moment, without disturbance or loss of balance.

How will the teacher succeed in teaching the blind pupil the origin of his movements, their true starting-points, their various degrees of dynamic force, their harmonization? By first explaining to him that each movement is produced by muscular contraction and by enabling him to note both the external and the internal effects of this contraction. To give him the sensation of contraction, however, he must first become accustomed to the state of utter relaxation. This is very difficult, for while we often note in the blind person a general lassitude, certain parts of his body, particularly the shoulders and the neck, are usually always tense. Again, the muscles of face and hands are continually twitching with nervous reactions. Therefore it is especially necessary to provide such exercises as will regulate the action of the diaphragm and train

all the other muscles to become completely lax at will, so that each effort of contraction, each origin of a movement, may become easily controllable. It is through touch, in the first place, that the blind pupil will succeed in controlling or checking—by feeling the teacher's arms or leg—the external effects of the contractions. He will learn to imitate these effects on his own arm and on each of his limbs, to isolate them, and finally to combine and harmonize them. A particular muscular effort is necessary to set the arm or the whole body in a particular direction, and any effort of a different nature or intensity is recognized as imperiling the exact orientation. The blind pupil will be able to recognize the external form of movements, according as they project themselves forwards or not. All muscular contraction modifies the gravity of a limb, and bodily equilibrium depends on an exact knowledge of the coöperating and the conflicting forces.

The possession of this equilibrium frees the mind from certain disturbing factors often evident in the blind pupil by the harassed expression of his face when his body begins to move or when this movement stops. Only when comfortably seated, does the sightless person show a countenance in calm repose. But even this tranquillity resembles too closely that of death, whereas the cessation of movement does not imply the stoppage of life. Every stop should be a preparation for a resumption of activity. A study of the various proper modes of stopping and then of continuing to advance, should form part of the education of the blind, as also of those who see. A rapid correspondence should be set up and maintained between the

nervous system and the moving apparatus. And all exercises in Eurhythmics without exception are meant to produce plastic, visceral and tactile impressions which communicate life to the brain. There is nothing mysterious about this correspondence. A sightless person may easily be taught the laws of psycho-physical associations by explaining to him certain methods of coördinating his movements and he is usually quicker to grasp and act upon these laws than the normal person. Indeed, the spatial and tactile sensations of the latter are no more than a resultant, an echo and transposition of visual sensations. From the moment that the blind man is able to control, both from within outwards and from without inwards, the many contractions of his muscles, his sense of orientation naturally becomes more acute. Indeed, if a certain contraction of the arm is recognized by him as inevitably setting this limb in a given direction, all that he has to do is to harmonize with this contraction all those which give the body the same direction, and so the body becomes aware of the space in which it moves.

The security of his movements is simplified for the normal child through his powers of imitation. "Walk like me; do just as I do," says the teacher to a child uncertain in gait or gesture. The child copies, checks, corrects, and becomes master of the movements he observes. The blind child should be given the same chances for imitation. But, of course, instead of looking at the master's arm moving or his fist clenching, he will feel the teacher's arm and wrist, and then will feel his own in order to discover the difference, and model and

grade his gestures, both dynamically and geometrically, according to the tactile image offered by the master or by a more advanced pupil. Indeed, this system is used by Dr. Besse of Geneva in the restoration of patients who have lost both the stereognostic sense and that of muscular contraction and relaxation.

It is not sufficient to strengthen the muscular and spatial sense in the blind man. He must also be taught to conjecture the obstacle beforehand, to keep clear of it, and finally to surmount it. The "obstacle" sense, brilliantly analyzed by Pierre Villay in his fine work: *Le Monde des Aveugles*, is continually manifesting itself to the normal person. When walking down an unfamiliar street in the dark, for instance, he instinctively halts even before he actually sees the wall in front of him. He becomes aware of the presence of the wall as much by sensing an obstacle to the air current as by conscious vision. I remember, after an air raid on Paris in 1916, of having found my way in total darkness from the rue des Abbesses to the rue Montmartre, without having once collided with a passer-by or run into any of the buildings, but simply by virtue of the mysterious warnings I received from certain sensations on different parts of my body.

When I instruct a pupil to walk blindfold past a long line of his comrades standing shoulder to shoulder and to make an abrupt right turn at the spot where contact between them is broken, it is seldom that he makes a mistake. Similarly he rarely fails in detecting the presence of another person in an otherwise empty room. He is warned of this presence by a cer-

tain atmospheric or caloric differentiation, by certain modifications in floor vibrations, by the sounds of breathing, also by certain olfactory emanations. Numerous experiments are still to be tried in this field, but already their frequent success assures us of their efficacy. In my lessons to normal children, I make use to a great extent of their sense of hearing and have found it an easy matter to guide them from place to place when blindfold, simply by singing softly as I move about the room, by striking a few chords on the piano or even by the sound of my footsteps which they follow unerringly. After practice on the level in this way, going up and down stairs does not present any great difficulty. In accordance with pre-determined instructions the pupils mount three steps, descend two, again mount five, turn and turn again, all without falling or even momentary loss of balance. The ascertaining of the ease with which children adapt themselves to these exercises, which manifestly call for a certain knowledge of the natural displacements of the weight of the body, has often made me think of the dismay with which, in a large institute for the blind, I saw on one occasion the little inmates, who had used the main staircase for several years, frequently stumble and even fall as they went up and down. Analytical exercises conscientiously practiced for a fortnight would assuredly have enabled them to move about quite easily on those stairs.

When the pupil has perfected himself in these preliminary exercises, calculated to strengthen his spatial and obstacle sense, he quickly and easily goes on to the more advanced efforts, and this because

of the association of ideas created by a muscular memory being thus constantly nurtured and developed. Certain physiologists class this kind of memory among the totally unconscious manifestations of the individual, and certainly its rôle is to determine, without the aid of reasoning, concatenations of movements that have become mechanical. This memory, however, may be developed by reasoned exercises, and then the number of associations considerably increases. For instance, a man, when walking, links his steps two by two, and if he is asked to scan this series in regular accents, he accents without advert- ing to it the first of a bar in duple time, although certain individuals will strike the ground with the right foot, while others use the left. After a month of military service, each soldier is automatically reduced to the "left, right." Thereafter it never occurs to him to use the right foot first. In our Eurhythmic classes, marching in three, four and five time, with the first tempo of each series accented, very soon becomes automatic. Only when the master calls out the number 3, 4, 5 or 6, is the irrational dynamic force of the accenting released. Later on, simply on hearing the music, the pupils will instinctively beat time; a new reflex is created. Similarly, muscular appreciation of space by using arm or leg, placed at one of the nine degrees of height or the nine surrounding planes studied in Eurhythmics, soon becomes instinctive. At the word of command: plane 3, degree 5, for instance, the arm automatically places itself in position, and if the master asks the pupil to direct the whole of his body in the same plane, the muscles instinctively do what is ordered.

Thus it is possible to supply the memory with guiding-marks, to increase the number of automatic movements, to devise new reflexes and considerably enrich the scale of motor habits as well as that of their combinations and concatenations.

Only when this rational initiation into the mechanical life of movements is achieved can the education of the "temperament" of the blind pupil be undertaken. It must not be forgotten that the sole reason for the blind pupil's apparent lack of motor rhythm is his ignorance of his powers of movement. If the teacher succeeds in developing confidence in the pupil's own powers, and assuring him that it is possible for him to make the ordinary bodily movements quite safely, then his imagination will develop, his awkwardness gradually disappear and an entirely new outlook on life will be the result.

One of the first concerns of Eurhythmics is the elimination of useless movements. A pupil who has gone through the course will walk and gesture harmoniously, without thinking of harmony or grace of motion, but solely because he instinctively employs only the muscles needed for action; hence there is no bungling, but the appearance of perfect poise. In expressing his thoughts, his gestures will be rapid and convincing, and the one whom he is addressing will perceive no groping, no hesitation or muscular conflict.

The blind man seldom gesticulates. He does not attempt to so emphasize his speech for he has never been taught the use of such motions, and he can neither imitate nor understand the value of the elo-

quent gestures of others. He is deprived, therefore, not only of a valuable channel of communication with his fellows, but also of the one means a man has of calming his nervous agitation by expressing it externally in a rhythmic manner. It cannot be denied that rhythmic movements produce a calming influence upon the nervous system. Most neurasthenics are people whose tempestuous desires find no outward expression; hence, a state of mental disorder ensues. Simply from this point of view, therefore, it would be advantageous to teach the blind child various mechanical movements of his body. Every one is aware how solicitous are the teachers in schools for the blind for the education of the handicapped under their care. It would seem to me that the general introduction of Eurhythmics into these institutions would be an incalculable aid to the teachers in their work, for the science would appear almost to have been devised for this very purpose.

So far I have dwelt only on the physiological aspect of my work, on the advantages to be gained by the blind from developing their muscular powers, perfecting their sense of touch and their knowledge of space and direction. Before concluding, however, I would like to touch on the value to the blind of a study of musical expression. To open to them the world of music with all its emotional capabilities and calming influences, is to give an ideal form to their most secret aspirations, and moreover to provide them with another channel of communication with sighted people.

Of all the arts, music is the one best capable of setting forth the in-

instinctive needs of the human being and of expressing in striking and lasting images his yearnings after a higher spiritual state. The more thorough command a man has over his powers of self-expression, the more the inner aspirations of his soul will assert themselves in transparent beauty and quiet harmony. So violent is the spiritual struggle within us that we are all conscious at times of an imperious necessity for finding some outlet for our secret longings and desires without, however, endangering our mental and moral equilibrium. It is in music above all that we find this relief from our perplexities; it excites and soothes us in turn and calms the conflict between our imagination and our vital acts. Hence, it can be readily seen that the more profoundly a blind man fathoms the secrets of the intimate construction of musical sounds, the more he too will be thrilled by the magic of his evocations. From a strictly utilitarian point of view, a musical education that aims not only at the development of the auditory and mu-

sical faculties of the blind man, but also at the development of his muscular sense and his consciousness of time, in all their nuances,—is calculated to fit him to collaborate effectively with a sighted person in teaching musical Eurhythmics and so open up to him a useful and interesting career. Even if this goal were to be attained only after much difficulty and discouragement, it is assuredly well worth the effort and should meet with all the help and enthusiasm possible from the more fortunate of mankind.

I have but pointed out a pathway, and I sincerely trust that there may be found some bold and persevering enough to follow it. Assuredly the problem of education is one of those which should interest us most vitally in these difficult times. It is worth while giving one's self wholeheartedly to so great an enterprise, with confident hope in the future, and a willingness to make every needed sacrifice for the improvement of the race and the mental and moral security of the generations to come.
